

## DOCUMENT RESUME

ED 415 273

TM 027 983

|             |                                                                                                                                                                                                                                             |
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| TITLE       | Predicting Achievement in College-Level Foreign Language Courses.                                                                                                                                                                           |
| PUB DATE    | 1997-11-00                                                                                                                                                                                                                                  |
| NOTE        | 15p.; Paper presented at the Annual Meeting of the Mid-South Educational Research Association (Memphis, TN, November 12-14, 1997).                                                                                                          |
| PUB TYPE    | Reports - Research (143) -- Speeches/Meeting Papers (150)                                                                                                                                                                                   |
| EDRS PRICE  | MF01/PC01 Plus Postage.                                                                                                                                                                                                                     |
| DESCRIPTORS | *Academic Achievement; *Anxiety; College Second Language Programs; *College Students; Cooperative Learning; Higher Education; *Prediction; Regression (Statistics); Second Language Instruction; *Second Language Learning; Sex Differences |

## ABSTRACT

Enrollment in a foreign language course increasingly is becoming an essential part of college students' programs of study. As a result, there has been an influx of students with diverse backgrounds, interests, and aspirations enrolling in foreign language courses in order to fulfill degree requirements. Unfortunately, many students underachieve in foreign language courses. Thus, this study of 184 university students sought to determine predictors of foreign language achievement. A setwise multiple regression analysis revealed that five variables (i.e. academic achievement, foreign language anxiety, expected overall average for current language course, value placed on cooperative learning, and gender) contributed significantly to the prediction of foreign language achievement. Specifically, students who tended to have the greatest problems acquiring a foreign language tended to be male, have low levels of academic achievement, have low expectations, value cooperative learning, and have the highest levels of anxiety. Overall, academic achievement was the best predictor, explaining 14.0% of the variance in achievement. Foreign language anxiety, the next best predictor, explained 10.5 % of the variance. The educational implications of these findings for improving the acquisition of foreign language are discussed, as are suggestions for future research. (Contains 34 references.) (Author/SLD)

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# Predicting Achievement in College-Level Foreign Language Courses

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Poster presented at the annual conference of the Mid-South Educational  
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## Abstract

Enrollment in a foreign language class increasingly is becoming an essential part of college students' programs of study. As a result, there has been an influx of students with diverse backgrounds, interests, and aspirations enrolling in foreign language courses in order to fulfill degree requirements. Unfortunately, many students underachieve in foreign language courses. Thus, this study of 184 university students sought to determine predictors of foreign language achievement. A setwise multiple regression analysis revealed that five variables (i.e., academic achievement, foreign language anxiety, expected overall average for current language course, value placed on cooperative learning, and gender) contributed significantly to the prediction of foreign language achievement. Specifically, students who tended to have the greatest problems acquiring a foreign language tended to be male, have low levels of academic achievement, have low expectations, value cooperative learning, and have the highest levels of anxiety. Overall, academic achievement was the best predictor--explaining 14.0% of the variance in achievement. Foreign language anxiety, the next best predictor, explained 10.5% of the variance. The educational implications of these findings for improving the acquisition of a foreign language are discussed, as are suggestions for future research.

### Predicting Achievement in College-Level Foreign Language Courses

Enrollment in a foreign language class increasingly is becoming an essential part of college students' programs of study (Horwitz, Horwitz, & Cope, 1986). As a result, there has been an influx of students with diverse backgrounds, interests, and aspirations enrolling in foreign language courses in order to fulfill degree requirements. Unfortunately, taking such courses can be an intimidating experience for some students, with many reporting severe difficulties, culminating in underachievement and disaffection. In fact, Young (1991) observed that many students delay taking a foreign language course for as long as possible, often enrolling in a class just prior to graduation.

Some researchers have investigated the relationship between foreign language achievement and a variety of affective variables (e.g., Gardner, 1985; Horwitz et al., 1986; MacIntyre & Gardner, 1989). Of these, foreign language anxiety has been the major focus. Many researchers in this area have found that, although students, in general, appear to be motivated to learn to develop their ability to communicate in the target language (Lindenau, 1987), many report the debilitating effects of foreign language anxiety at all stages of language learning (MacIntyre & Gardner, 1991a). In this respect, foreign language anxiety acts as an affective filter which results in the student being unreceptive to language input (Krashen, 1980). In addition, students with high levels of foreign language anxiety often exhibit avoidance behaviors such as missing class and postponing homework (Horwitz et al., 1986). For many students, a language class can be the most anxiety-provoking course in their program of study (Campbell & Orfiz, 1991; Horwitz et al., 1986; MacIntyre & Gardner, 1991a). Indeed, MacIntyre and Gardner (1989) found that French classes were rated as significantly more anxiety-provoking than were mathematics and English classes.

Foreign language anxiety has been found to be related to performance in oral examinations (Phillips, 1992; Scott, 1986), to the production of vocabulary (Gardner, Moorcroft, & MacIntyre, 1987), and to teachers' ratings

of achievement (Trylong, 1987), and to students' self-ratings of achievement (MacIntyre & Noels, 1997). According to Horwitz et al. (1986), foreign language anxiety manifests itself when students avoid conveying complex messages in the foreign language, when they display a lack of confidence or freeze up in role-play activities, and when they forget previously-learned vocabulary or grammar in evaluative situations. Anxious students are less likely to volunteer answers and to participate in oral classroom activities (Ely, 1986). MacIntyre and Gardner (1989) found that high language-anxious students take more time to learn vocabulary items and experienced more difficulty in recalling them. Indeed, although language-anxious students study more than their non-anxious counterparts, their levels of achievement often do not reflect that effort (Horwitz et al., 1986; Price, 1991). Thus, these students often report that the pace of the class is too rapid and that they feel left behind (MacIntyre & Gardner, 1991b).

Some researchers propose that affective variables play a major role in determining levels of foreign language achievement (Gardner, 1985; Horwitz et al., 1986; MacIntyre & Gardner, 1989). In particular, these researchers assert that foreign language anxiety is one of the best predictors of foreign language achievement. Unfortunately, many of the studies from which the conclusion has been drawn have involved small sample sizes. For example, Horwitz (1991) estimated that foreign language anxiety accounts for approximately 25% of the variance in final grades; however, the sample size in that study was extremely small--29 students. In addition, many studies have investigated the role of anxiety on foreign language achievement in only one language. Specifically, MacIntyre and Gardner (1991a, 1991b) found that "French anxiety" played a major role for students who were engaged in activities involving the use of French. Similarly, Saito and Samimy (1996) found that foreign language anxiety can have a negative impact on Japanese learners' performance. That is, few researchers have investigated whether foreign language anxiety predicts achievement across different languages within the same study.

Thus, the purpose of this exploratory study was to investigate demographic and affective correlates of foreign language achievement across various languages. With respect to affective variables, the relationship between anxiety and foreign language achievement was investigated. In addition, since few academic domains appear to pose as much of a threat to self-concept as does foreign language learning (Horwitz et al., 1986; Horwitz, 1996), the study also investigated the role of direct measures of self-perception (i.e., perceived intellectual ability, perceived scholastic competence, perceived self-worth, and expected final course average for current language course), as well as measures of constructs which are manifestations of self-perceptions (i.e., social interdependence and study habits). Finally, the following demographic variables were used: academic achievement, gender, age, semester course load, number of countries visited, number of high school foreign language courses undertaken, number of college-level foreign language courses undertaken, status of foreign language course (i.e., required vs. elective), and foreign language proficiency of immediate family members.

### Method

#### *Subjects*

The sample comprised 184 students enrolled in Spanish (60.3%), French (27.2%), German (9.8%), or Japanese (2.7%) introductory-level courses at a mid-southern university. Participation was voluntary. A Kruskal-Wallis one-way analysis of variance revealed no differences in foreign language achievement ( $\chi^2 = 0.29$ ;  $df = 3$ ;  $p > 0.05$ ) among students enrolled in Spanish courses, French courses, German courses, and Japanese courses. Therefore, the responses of all participants were combined.

The ages of the respondents ranged from 18 to 71 ( $M = 22.5$ ,  $SD = 6.4$ ), with 34.2% being male. With respect to year of study, the participants consisted of freshmen (16.4%), sophomores (18.6%), juniors (30.1%), seniors (31.7%), and graduate students (3.3%). These students represented more than 30 different degree programs from the Colleges of Business Administration,

Education, Fine Arts and Communication, Health and Applied Sciences, Liberal Arts, and Natural Sciences and Mathematics, with a mean GPA of 3.1 ( $SD = 0.6$ ). The majority of students (60.3%) were required to take the language course as part of their degree program. The overall course load of the participants ranged from 1 to 9 ( $M = 5.1$ ,  $SD = 1.2$ ). In addition, 84.8% of the participants had studied a foreign language formally in high school, while 33.2% had done so in college. The majority of students (56.0%) had never left the United States. Of those who had, the number of countries visited ranged from 1 to 9. Approximately one-fifth (18.5%) of the students had immediate family members whose native language was not English.

#### *Instruments and Procedure*

A battery of instruments was used in the study, namely: the Foreign Language Classroom Anxiety Scale (FLCAS), the Self-Perception Profile for College Students (SPPCS), the Social Interdependence Scale (SIS), the Academic Locus of Control Scale (ALC), the Study Habits Inventory (SHI), and the Background Demographic Form (BDF). Participants were given the questionnaire packet containing the six instruments during the fourth week of the semester. They were instructed to complete the battery of instruments at home and to return it within two weeks.

The Foreign Language Classroom Anxiety Scale (FLCAS), developed by Horwitz et al. (1986), is a 33-item Likert-type instrument, which assesses the degree to which students feel anxious during language class. The scale has been shown to be both reliable and valid, with an alpha coefficient of .93 and an eight-week test-retest coefficient of .83 (Horwitz, 1991; Horwitz et al., 1986). Validity has been established (see Horwitz, 1991) via significant correlations with communication apprehension, as measured by McCroskey's (1970) Personal Report of Communication Apprehension, and with test anxiety, as measured by Sarason's (1978) Test Anxiety Scale. In addition, Aida (1994) reported a Cronbach's alpha coefficient of .94, using a sample of 96 students in a second-year Japanese course.

The Self-Perception Profile for College Students (SPPCS; Neeman &

Harter, 1986) is a 54-item scale, comprising 12 subscales. According to its authors, the reliability of this subscale, as assessed by coefficient alpha, is .84 (Neeman & Harter, 1986).

The Social Interdependence Scale (SIS), developed by Johnson and Norem-Hebeisen (1979) is a 22-item, 5-point Likert-type format instrument measuring individuals' cooperative, competitive, and individualistic perceptions. Scores on the cooperative (7 items) and individualistic (7 items) scales range from 7 to 35, whereas scores on the competitive scale (8 items) range from 7 to 40. The higher the score on each scale, the more cooperative, the more competitive, or the more individualistic the respondents consider themselves to be. Scores on these scales are relatively independent so that a student could conceivably receive a high score on all three scales. The reliability of this scale, as measured by coefficient alpha, has been found by its authors to be .94 for the cooperative scale, .85 for the competitive scale, and .73 for the individualistic scale (Jones, Slate, & Marini, 1995).

The Academic Locus of Control Scale for College Students (ALC), developed by Trice (1985), has 28 true-false items related to personal control over academic outcomes. Scores range from 1 (strongly internal locus) to 28 (strongly external locus). Coefficient alpha reliability has been found to range from .68 (Agnew, Slate, Jones, & Agnew, 1993) to .70 (Trice, 1985).

The Study Habits Inventory (SHI), developed by Jones and Slate (1992), consists of 63 true-false items designed to assess the typical study behaviors of college students. Thirty items describe effective study behaviors, and 33 items delineate ineffective study behaviors. The latter items are key-reversed such that total scale scores range from 0 to 63, with high scores indicating good study skills. The SHI has been found by its authors to be reliable, as measured by a mean alpha coefficient of .85, and a two-week test-retest coefficient of .82. Validity of the SHI has been established through significant correlations with college students' grades (Jones & Slate, 1992). The Background Demographic Form (BDF), developed specifically for this study, extracted relevant demographic information such as age, sex, ethnicity, degree

program, year of study, native language, and countries visited.

Finally, foreign language achievement was measured by using students' course averages. However, in order to adjust for differences in teacher variables (e.g., effectiveness, experience, motivation, and testing and scoring standards), standardized course averages were used instead of raw averages. Standardized course averages (i.e., z-scores) were computed for each student, by subtracting the average achievement score of the foreign language class to which the student belonged from the student's course average, and then dividing by the class standard deviation.

### Results

A setwise multiple regression analysis revealed the following variables which contributed significantly ( $F[5, 178] = 18.47, p < .0001$ ) to the prediction of foreign language achievement: foreign language anxiety ( $F[1, 178] = 18.33, p < .0001$ ), gender ( $F[1, 178] = 7.95, p < .01$ ), academic achievement ( $F[1, 178] = 25.83, p < .0001$ ), expected overall average for current language course ( $F[1, 178] = 5.69, p < .05$ ), and value placed on cooperative learning ( $F[1, 178] = 9.65, p < .01$ ). These five variables combined to explain 34.2% of the variation in foreign language achievement. The regression model suggests that students with the lowest levels of foreign language achievement tended to have at least one of these characteristics: male, low academic achievers, high levels of foreign language anxiety, low expectations of their overall average for their current language course, and valued cooperative learning. Overall, academic achievement was the best predictor--explaining 14.0% of the variance in foreign language achievement. Foreign language anxiety, the next best predictor, explained 10.5% of the variance. Gender explained 4.0% of the variance, followed by value placed on cooperative learning (3.6%) and expectation of overall average for the current language course (2.1%).

### Discussion

An interesting finding was that males have lower levels of foreign language achievement than do females. This finding may reflect Oxford and

Ehrman's (1993) observation that females tend to use more conscious learning strategies (e.g., metacognitive planning) than do males. However, further research is needed which investigates why males appear to underachieve relative to females.

The finding that students who have low expectations of their foreign language ability tend to have low levels of foreign language achievement might reflect that students have an accurate perception of their foreign language ability. However, this finding also suggests that a self-fulfilling prophecy prevails, in which students who have low expectations of their foreign language ability exhibit behaviors which attenuate their levels of performance. Future research should explore further this expectation/achievement relationship.

The finding that students who value cooperative learning tend to underachieve in their foreign language class suggests that instructors could consider using cooperative learning groups to solve in-class problems. Although no single method by itself is likely to increase student achievement, instructors could consider emphasizing group work in a variety of formats (Koch & Terrel, 1991). As recommended by Foss and Reitzel (1988), students could be asked to practice reading a script orally to members of their group before reciting it in front of the whole class. Cooperative groups also could be used to practice any role-playing activities. Students also could be encouraged to form study groups outside the classroom period. Use of such groups could reduce the need for instructors to call on students at random, since the latter appears to increase anxiety levels (Daly, 1991). Indeed, Smith and MacGregor (1992) assert that collaborative learning projects can help solve many of the problems of higher education, such as perceived or real barriers which may exist between faculty and students and student passivity toward their own education.

The major finding in this study is that academic achievement and foreign language anxiety explain a substantial proportion of the variance in foreign language achievement. Indeed, these variables combined explain approximately

25% of the variance in foreign language achievement. Horwitz (1991) estimated that foreign language anxiety accounts for approximately 25% of the variance in foreign language performance. However, since the sample size in that study was extremely small, it is likely that the 10.5% of the variance explained by foreign language anxiety in the present study is a more accurate reflection. Nevertheless, future research should investigate the predictive power of foreign language anxiety.

It appears that students who have the highest levels of foreign language achievement include those who have low levels of anxiety and those who have high levels of academic achievement. This finding seems to contradict Onwuegbuzie, Bailey, and Daley (1997), who found that high academic achievers tend to have higher levels of foreign language anxiety than do their low-achieving counterparts. What these two sets of findings suggest is that instructors should not assume that students who have high levels of academic achievement do not experience difficulties while learning foreign languages. It is likely that although many high academic achievers are able to attain relatively high levels of performance in foreign language classes, they experience high levels of foreign language anxiety. Indeed, in the past year, one of authors of the present study has used several students' reports of anxiety to ascertain that two students were suffering from partial hearing loss and a third from previously undiagnosed Attention-Deficit/Hyperactivity Disorder. Interestingly, the grade point averages of these students ranged from 3.4 to 3.8. These observations underscore the importance of determining the anxiety levels of students with both low levels and high levels of academic achievement. Also, these findings suggest that interventions which focus on anxiety management and reduction may be helpful for both groups of students. In any case, future research should investigate the apparent relationship between academic achievement, foreign language anxiety, and foreign language performance.

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